ABSTRACT OF THE DISCLOSURE

A CPU of an effector calculates envelopes of an impulse response waveform from sample data of impulse response waveform data supplied from a microphone via an A/D converter circuit. Next, CPU detects a section during which a slope of the detected envelopes takes a value near "0" during a predetermined time or longer. CPU calculates an average value of sample data during the detected section to correct a DC offset. Thereafter, CPU acquires a maximum value of absolute values among the sample data during the detected section, and determines this maximum value as a background noise component value. The background noise components are removed from each sample data constituting the impulse response waveform data.